



زمان امتحان ۱۲۰ دقیقه

**A. Direction: Read the following paragraphs and answer the following questions.**

After re-examining a thousand studies, the American Association of University women researchers found that girls make up only a small percentage of students in computer science classes. Girls consistently rate themselves significantly lower than boys in their ability and confidence in using computers. And they use computers less often than boys outside the classroom.

- Choose a *topic* which best describes the paragraph.

- What is the paragraph mostly about? Boys or Girls?

A rogue security software program tries to make you think that your computer is infected by a virus and usually prompts you to download or buy a product that removes the virus. The names of these products frequently contain words like Antivirus, Shield, Security, Protection, or Fixer. This makes them sound legitimate. They frequently run right after you download them, or the next time that your computer starts. Rogue security software can prevent applications, such as Internet Explorer, from opening. Rogue security software might also display legitimate and important Windows files as infections.

- Choose a *topic* which best describes the paragraph.

- The word Antivirus should be in the name of the products that ..... the virus.

One thing that many architects don't initially get about XML is that it's just a way to represent information. There's nothing magical about an XML document: It just shows how various pieces of information relate to one another. When you receive a document from an external source that has information you know you'll never use (such as internal reference numbers from that source that have no bearing on your system), toss them! Use an XSLT style sheet or some other mechanism to filter out the information you want to keep and drop the information you don't want. Remember, it's always going to be more efficient to filter the data once (as it comes into your system) than every time you need to access it.

- Choose a *topic* which best describes the paragraph.

- What should we do if we receive a document from an external source?

Clustering is used in information retrieval systems to enhance the efficiency and effectiveness of the retrieval process. Clustering is achieved by partitioning the documents in a collection into classes such that documents that are associated with each other are assigned to the same cluster. This association is generally determined by examining the index term representation of documents or by capturing user feedback on queries on the system. In cluster-oriented systems, the retrieval process can be enhanced by employing characterization of clusters. In this paper, we present the techniques to develop clusters and cluster characterizations by employing user viewpoint. The user viewpoint is elicited through a structured interview based on a knowledge acquisition technique, namely personal construct theory. It is demonstrated that the application of personal construct theory results in a cluster representation that can be used during query as well as to assign new documents to the appropriate clusters

- Choose a *topic* which best describes the paragraph.

- During query, you can apply ..... theory.

**B. Direction: Read the following paragraph and write the references of the words underlined.**

Information Technology Security is information security applied to technology. It is worthwhile to note that a computer does not necessarily mean a home desktop. A computer is any device with a processor and some memory (even a calculator). IT security specialists are almost always found in any major enterprise/establishment due to the nature and value of the data within larger businesses. They are responsible for keeping all of the technology within the company secure from malicious cyber-attacks that often attempt to breach into critical private information or gain control of the internal systems.

- 1<sup>st</sup> line (It: .....)
- 3<sup>rd</sup> line (IT: .....)
- 4<sup>th</sup> line (they: .....)
- 6<sup>th</sup> line (that: .....)

**C. Direction: Fill in the blank with the words below.**

(boardroom, text, displayed, clone, solution, educational, encapsulation, metalanguage, checksum, nodes)

1. Distance learning and videoconferencing are concepts made possible with the use of an electronic classroom or \_\_\_\_\_ accessible to people in remote locations.
2. Multimedia combines \_\_\_\_\_ with sound, video, animation, and graphics.
3. Disk caching works in essentially the same way whether you have a cache on your disk controller or you are using a software-based \_\_\_\_\_
4. Linux was purposefully designed as a near-\_\_\_\_\_ of Unix.
5. An intermediate node calculates and verifies the \_\_\_\_\_ for each packet.
6. The session layer opens communications and has the job of keeping straight the communications among all \_\_\_\_\_ on the network.
7. XML is a subset of SGML, but it is also, like SGML, a \_\_\_\_\_.
8. XML, by design, does not deal with how the data is \_\_\_\_\_ to the end user.
9. The \_\_\_\_\_ feature of OOP is the natural tool for complex applications in which speech and moving images are integrated with text and graphics.

10. Multimedia systems are known for their \_\_\_\_\_ and entertainment value.

**D. Direction: Fill in the blanks according to the parts underlined.**

The physical layer encodes the packets into the medium that will carry them – such as an analogue signal, if the message is going across a telephone line – and sends the packets along that medium.

- *that medium* refer to .....

The network layer selects a route for the message. It forms data into packets, counts them, and adds a header containing the sequence of packets and the address of the receiving computer.

- *It* refer to .....

Not only is computing equipment getting smaller, it is getting more sophisticated. Computers are part of many machines and devices that once required continual human supervision and control. Today, computers in security systems result in safer environments, computers in cars improve energy efficiency, and computers in phones provide features such as call forwarding, call monitoring, and call answering.

- Computing equipment is getting smaller and .....

- Call forwarding is a feature provided by .....

A third principle behind OOP is polymorphism. This means that different objects can receive the same instructions but deal with them in different ways. For instance, consider again the triangles example. If the user right clicks the mouse on 'Right triangle', a voice clip might explain the properties of the right triangles. However, if the mouse is right clicked on 'Equilateral triangle' the voice instead explains properties of equilateral triangles.

- Choose a *topic* which best describes the paragraph.

- *This* refers to .....

- *them* refers to .....

Most software companies won't sell you their source code, or will only do so for an eye-watering price, because they believe that if they make it available it will destroy their revenue stream.

- Choose a *topic* which best describes the sentence.

- *revenue stream* means .....

**E. Writing.**

خطاب به استاد خود نامه‌ای بنویسید و از وی تقاضا کنید تا الگوریتم‌های داده‌کاوی را برای جلسه آینده در کلاس توضیح دهند.

**504 Absolutely Essential Words**

1. keen: .....
2. essential: .....
3. deceive: .....
4. popular: .....
5. client: .....

*Good Luck*